WQD7001 PRINCIPLES OF DATA SCIENCE
TUTORIAL 3

Name: Faiz Yah

1. List 5 traits of a great Data Scientist, from your own perspective.
   a. Good storytelling and communication skills
   b. Strong business acumen or domain knowledge to truly understand the problem at hand
   c. Solid problem-solving skill to solve complex problems
   d. Adaptability in dealing with unforeseen challenges along the project
   e. Self-learning and constant upskilling in learning new knowledge in this fast-paced and ever-evolving field

2. A computer scientist will make a good data scientist. Discuss this statement.

- Not necessarily that a computer scientist can be a good data scientist. Data scientist covers an intersection of 3 elements, computer science knowledge, statistics and domain knowledge, a good data scientist is one that excels in all these 3. While a computer scientist might be competent in this aspect of programming and algorithm, they might lack knowledge and expertise in applying statistical methods to the data and building a machine learning model. They might also not have sufficient domain knowledge to fully understand the business problems and ways to solve it.

3. Choose one case study from this url : https://www.knowledgehut.com/blog/data-science/top-data-science-case-studies

   Discuss the technology used in one of the case study (e.g. the use of Recommender Systems in Entertainment Industry), and how it was applied. What would be possible implications if there's no data science solution for the case described?

   I find ***Netflix Content Suggestions*** use-case the most interesting. This recommender system most likely implements algorithms like collaborative filtering and graph neural network to efficiently provide accurate recommendations based on the user's profile. This recommender system allows users to easily find similar genres of movies and series that they enjoy watching. Netflix is able to retain more users and watch time resulting in higher profit, while users also enjoy the privilege of unlimited entertainment seamlessly and quickly, providing a win-win for both.

   One major implication without the application of the data science approach would be that users might not be able to find movies and series that they enjoy. For example, a user only speaks Japanese and prefer romantic movies, however movies that are recommended are all in German and are of horror genre. This would undoubtedly frustrate the user and discourage them to continue to use the platform and stop their subscription, and in the end Netflix would also lose more customer and profit.